Four new species and a key to species of *Siobla* (Hymenoptera: Tenthredinidae) from Tibet, China

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Abstract: The species of *Siobla* Cameron from Tibet, China are investigated. Four new species are described: *Siobla albomaculata* Niu & Wei sp. nov., *S. chayuica* Niu & Wei sp. nov., *S. muotuoensis* Niu & Wei sp. nov., and *S. unicincta* Niu & Wei sp. nov. A key to the 11 known species of *Siobla* from Tibet is provided.

Key words: Tenthredininae; Sioblini; taxonomy

中国西藏侧跗叶蜂属四新种及分种检索表（膜翅目：叶蜂科）

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摘要：简要介绍了中国西藏侧跗叶蜂属的研究状况。记述了侧跗叶蜂属 4 新种：*Siobla albomaculata* Niu & Wei sp. nov., *S. chayuica* Niu & Wei sp. nov., *S. muotuoensis* Niu & Wei sp. nov., 和 *S. unicincta* Niu & Wei sp. nov.。编制了西藏自治区 11 种侧跗叶蜂的分种检索表。

关键词：叶蜂亚科；侧跗叶蜂族；分类

Introduction

Siobla Cameron, 1877 is among the ten largest genera in Tenthredinidae. 107 species have been described until now and 83 of them have been recorded from China (Niu & Wei 2013).

Tibet is one of the largest provincial areas of China. The southeast part of the region has a high sawfly diversity. Malaise (1945) recorded many sawfly genera and species from eastern Tibet and the nearby region, especially the boundary area of Tibet, Yunnan, Sichuan and North Myanmar, but only two *Siobla* species were recorded by Malaise from Tibet: *S. mooreana* Cameron, 1877 and *S. iridipennis* Malaise, 1934. Xiao *et al.* (1988) described *S. xizangensis* from Motuo (Mêdog) of Tibet. These three species are the only records of *Siobla* species from Tibet (Wei *et al.* 2006). According to the collection data in the CSCS, *S. mooreana* and *S. xizangensis* are not rare species but *S. iridipennis* is so rare that only the holotype female was known so far.

Saini *et al.* (1985) studied Indian *Siobla* species and recorded 5 species from the northern boundary area of the country. Saini & Bharti (1999) and Saini & Vasu (2000) described an additional 7 *Siobla* species from northern India.

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Since 2003, we have implemented four investigations of the sawfly fauna of Tibet and collected a long series of *Siobla* specimens. Eleven *Siobla* species are found from Tibet, including 6 undescribed species. Among them *S. bomeica* has already been described by Niu *et al.* (2012) and *S. dianzang* will be described by Niu *et al.* (2015). Here we describe the remaining 4 new species. A key for separating Tibetan *Siobla* species is also provided.

Material and methods

All nomenclatural acts, authors and literature are registered in ZooBank as per the recent proposed amendment to the International Code of Zoological nomenclature for a universal register for animal names (ICZN 2008). Place names of the Xizang Autonomous Region follow Wu (1995).

Specimens examined during this study are deposited in the Insect Collection of Central South University of Forestry and Technology, Changsha, China (CSCS) and Kobe University, Kobe (KUK). The depository of holotypes is given.

Taxonomy

Key to adults of *Siobla* species from Tibet

1. Body distinctly metallic blue, head sometimes with reddish or greenish tinge……*S. bomeica* Niu & Wei
-. Body color various, but without distinct metallic tinge…… 2
2. Anterior slope of mesoscutellum almost impunctate, strongly shiny, posterior slope densely punctured, interspaces distinct…… 3
-. Anterior slope of mesoscutellum densely punctured, shiny interspaces distinct or absent, seldom wider than diameter of a puncture; posterior slope extremely densely punctured, without shiny interspaces, matt……6
3. Hind femur, hind tibia and tarsus yellowish brown, apical part of hind femur with an obscure dark spot…… ……*S. darjilingia* Saini *et al.*
-. Hind femur largely black, hind tibia with distinct black macula…… 4
4. Pale parts of body yellowish white…… *S. mooreana* Cameron
-. Pale parts of body yellowish brown…… 5
5. Female and male. Black macula on hind tibia very small and obscure; apex of fore wing with a large smoky macula, inner margin of macula convex, basad 1r-m…… *S. dianzang* Niu & Wei
-. Male. Apical 1/4 of hind tibia black, clear; apex of fore wing with a small smoky macula, basal limit beyond vein 2r…… *S. harpeata* Saini & Bharti
6. Female. Mesonotum and mesoscutellum yellow; lancet with distinct spiculella……*S. iridipennis* Malaise
-. Female and male. Mesonotum and mesoscutellum black; lancet without distinct spiculella…… 7
7. Male. 4th to 9th antennomeres yellow…… *S. chayuica* sp. nov.
-. Female and male. Antenna entirely black…… 8
8. All abdomial sternites and apical sheath entirely yellow brown; lateral side of first tergite with distinct pale spot; central or apical part of pterostigma distinctly darker than base of stigma…… ……*S. xizangensis* Xiao, Huang & Zhou
-. Apical 2 sternites, apical sheath largely and first tergite entirely black; color of pterostigma uniform……9
9. Pterostigma yellow brown; hairs on dorsal side of head pale brown……*S. muotuoensis* sp. nov.
-. Most part of pterostigma black brown; hairs on dorsal side of head black brown……10

10. Abdominal tergite 2 and sternite 2 in female yellow brown, apex of sheath pale brown; pale part of legs yellow brown; metabasitarsomere in both sexes slightly longer than following 3 tarsomeres together; two tibial spirs of hind leg in male pale brown (Figs. 16, 17); penis valve as Fig. 20·····*S. unicincta* sp. nov.

-. Abdominal tergite 2 and all sternites in female black, sheath entirely black; pale part of legs white; metabasitarsomere in both sexes slightly shorter than following 3 tarsomeres together; outer tibial spur of hind leg in male dark brown, inner tibial spur pale brown (Figs. 1, 2); penis valve as in Fig. 5····· ····· *S. albomaculata* sp. nov.

1. ***Siobla albomaculata* sp. nov.** (Figs. 1–6)

urn:lsid:zoobank.org:act:EEFE7431-27E3-4383-BEBE-C8D5F6A418BD

Description. Holotype. Female (Fig. 1). Length 10 mm. Body and antenna black, labial palp and cercus blackish brown, triangular macula on middle part of 10th abdominal tergite pale brown. Legs black, anterior stripe on fore femur pale brown, fore and middle tibiae and tarsi, basal 2/3 of hind tibia, hind tarsi yellowish white, each tibial spur brown, posterior part of apex of both fore and middle tibiae dark brown. Wing hyaline, vein R1 pale brown, stigma and other veins blackish brown. Hairs on dorsum of head dark brown; hairs on pleuron with basal half blackish brown, fading towards apices.

Clypeus less densely punctured, interspace microsculptured, mat; punctures on labrum minute and shallow; rest of head densely punctured without any interspaces; mesonotum densely punctured, interspaces distinctly narrower than diameter of punctures, microsculptured, mat; lateral sides of parapsis punctured with shiny interspaces; anterior slope of mesoscutellum densely punctured without interspaces; posttergite microsculptured; metascutellum densely punctured; metapostnotum shiny; parapsides densely sculptured and faintly punctured; punctures on lateral area of cenchri and middle ridge between cenchri minute and sparse, surface shiny; mesepisternum with middle part densely punctured without interspaces, anterior part sparsely punctured, interspaces mat, posterior area with small and sparse punctures and microsculptured interspaces, unpolished, and ventral part with very sparse and minute punctures, interspace shiny, anterior part of venter with a small and impunctate area, polished; anepimeron coarsely punctured, with basin microsculptured; katepimeron microsculptured with posterior margin shiny; metepisternum with upper part shallowly punctured and microsculptured, venter sparsely punctured, shiny; metepimeron with dorsum densely punctured, middle part of venter microsculptured, posterior corner shiny; abdominal tergites shiny without microsculptures, 3rd to 9th abdominal tergites with lateral sides shallowly and sparsely punctured.

Hairs on head sparse, most hairs 2 × as long as transverse diameter of median ocellus; anterior margin of clypeus round; malar space 1.1 × transverse diameter of median ocellus; head in front view with eyes converging below, lower interocular distance 1.4 × eye height; anterior margin of supraantennal tubercle elevated, posterior end confluent with low frontal ridge, dorsum of supraantennal tubercle broader than high; middle fovea shallow and broad, bottom without deep fovea, lateral fovea deep; interocellar furrow narrow and deep, postocellar furrow shallow; postocellar area elevated, lower than top of ocelli, without middle carina, about 1.7 × as broad as long; lateral furrows shallow, curved outwards, obviously divergent posteriorly; head behind eyes equal to eyes in length in dorsal view, convex at basal half and narrowing posteriorly; occipital carina distinct and complete, occipital furrow obtuse. Antenna filiform, obviously longer than vein C, and subequal to head and thorax combined,

obviously shorter than abdomen; 2nd antennomere 1.2 × as long as broad, 3rd antennomere 1.7 × as long as 4th antennomere, apex of flagellum slightly dilated, not compressed, 7th antennomere 2.1 × as long as broad. Middle furrow on prescutum weak and shallow; mesoscutellum roundly elevated, not beyond top of scutum, anterior slope about 1.4 × as long as posterior slope, posttergite with an obtuse carina; mesepisternum obtusely elevated, without ventral spur. Apex of hind tibia distinctly enlarged; metabasitarsus 5 × as long as broad, as long as remaining 3 tarsomeres combined; pulvilli of hind tarsus developed, 1st pulvillus 0.5 × apical breath of metabasitarsus, distance between basal two pulvilli 2.3 × length of 2nd pulvillus. Hind wing with petiole of anal cell as long as cu-a. Ovipositor sheath as long as middle tibia, apical sheath 1.5 × as long as basal sheath; lancet weakly sclerotized with 15 annuli (Fig. 3), serrulae feebly protruding with distinct but not acute inner corner, membranous margins between middle serrulae slightly concave and distinctly shorter than serrulae, area below pore line of 9th annulus 2.2 times as long as high, 8th to 9th serrulae as in Fig. 4.

Male. Length 9 mm (Fig. 2). Similar to female in color and structure but 2nd to 4th abdominal tergites and 2nd to 5th sternites reddish brown, pale spot on each leg reddish brown; hairs blackish brown; malar space as long as radius of median ocellus, head in front view with lower interocular distance 0.8 × eye height; head behind eyes 0.7 × as long as eyes in length in dorsal view. Genitalia as in Figs. 5, 6.

Etymology. The spots on legs of female are white, rather than yellowish brown in the closely related species and this is the basis for the specific epithet "*albomaculata*".

Holotype. ♀, **China,** Tibet, Mêdog, Lage, E.94º59′, N.29º34′, 3740 m, 15-VI-2009, Zejian LI, CSCSHT 00810047 (CSCS). **Paratype.** 1♂, same data as holotype.

Distribution. China (Tibet).

Remarks. This species is allied to *S. unicincta*. See the above key for the differences between the two species.

2. ***Siobla chayuica* sp. nov.** (Figs. 7–9)

urn:lsid:zoobank.org:act:41924807-6ED9-4CE7-A31F-8007FC178674

Description. Holotype. Male (Fig. 7). Length 10.5 mm. Body black, antenna reddish brown, 1st and 2nd antennomeres, and basal 9/10 of 3rd antennomere black; 2nd to 5th abdominal tergites and 2nd to 6th sternites yellowish brown. Legs black, apical half of and anterior stripe of both fore and middle femora, fore and middle tibiae and tarsi, basal 2/3 of hind tibia, and hind tarsi orange brown, each tibial spur pale brown. Wings uniform infuscated, base of vein C and stigma pale brown, other veins blackish brown. Hairs on head and thorax blackish brown, apices slightly pale.

Clypeus densely punctured, interspace narrow, shiny; head densely punctured, punctures on temple without any interspaces; punctures on mesonotum smaller than punctures on head, interspaces narrow, microsculptured; punctures on mesoscutellum similar to punctures on head, interspaces narrow, shiny; lateral sides of posttergite microsculptured, middle part of posttergite shiny. Punctures on lateral area of cenchri and middle ridge between cenchri minute and sparse, surface shiny; metascutellum with anterior slope shiny and posterior slope densely punctured; metapostnotum shiny; mesepisternum with middle part densely punctured without interspaces, anterior part sparsely punctured, interspaces mat, posterior area with small and sparse punctures and microsculptured interspaces, and venter with very sparse and minute

punctures, interspace microsculptured, mat, anterior part of venter with a small unpunctured area, polished; anepimeron coarsely punctured, with basin microsculptured; katepimeron microsculptured with posterior margin shiny; metepisternum with upper part shallowly punctured and microsculptured, venter sparsely punctured, shiny; metepimeron with dorsum densely punctured, most of venter and posterior corner shiny; 1st abdominal tergites shiny without microsculptures, 2nd to 9th tergites weakly microsculptured, and 5th to 9th tergites shallowly and sparsely punctured.

Hairs on head sparse, apices curved, 2.2 × as long as transverse diameter of median ocellus; hairs on pleuron 2.5 × as long as transverse diameter of median ocellus; anterior margin of clypeus round; malar space 0.3 × transverse diameter of median ocellus; head in front view with eyes converging below, lower interocular distance 0.8 × eye height; anterior margin of supraantennal tubercle obviously elevated, posterior end confluent with low frontal ridge; middle fovea small and shallow, open to frontal basin; lateral fovea deep; interocellar furrow narrow and deep, postocellar furrow shallow; postocellar area hardly elevated, obviously lower than top of ocelli, without middle carina, about 1.4 × as broad as long; lateral furrows deep, slightly curved outwards, obviously divergent posteriorly; head behind eyes 0.6 × eyes in length in dorsal view, slightly convex at basal 1/3 and obviously narrowing posteriorly. Occipital carina complete, posterior ridge of postocellar area higher than posterior ridge of temple. Antenna short and stout, nearly as long as vein C, and subequal to head, thorax, and 1st abdominal tergite combined; 2nd antennomere 1.3 × as long as broad, 3rd antennomere 1.8 × as long as 4th antennomere, subapical antennomeres slightly dilated, not compressed, 7th antennomere 1.8 × as long as broad. Middle furrow on prescutum obscure; mesoscutellum weakly elevated, not beyond top of scutum, without carina or peak, posttergite hardly oblique, with an obscure carina; mesepisternum obtusely elevated, without ventral spur. Hind femur robust, greatest width as long as 17 × malar space, base of femur suddenly narrowing; metabasitarsus obviously enlarged, 4.7 × as long as broad, slightly longer than remaining 3 tarsomeres combined; pulvilli of hind tarsus small, 1st pulvillus 0.25 × apical breath of metabasitarsus, distance between basal two pulvilli 5 × length of 2nd pulvillus. Hind wing with petiole of anal cell longer than half of cu-a. Genitalia as in Figs. 8, 9.

Female. Unknown.

Etymology. The specific epithet is from the Chinese pronunciation of the type locality.

Holotype. ♀, **China,** Tibet, Zayü (Chayu), Cibagou, E.97º27.771′, N.28º53.816′, 2697 m, 23-VI-2009, Meicai WEI, CSCSHT 00810050 (CSCS). **Paratypes.** 3♂, **China,** Tibet, Zayü, Cibagou, E.97º27.771′, N.28º53.816′, 2697 m, 23-VI-2009, Meicai WEI & Zejian LI.

Distribution. China (Tibet).

Remarks. This species is close to *S. basifusca* Niu & Wei, 2013, but differs from the latter by the following: body robust, the greatest width of hind femur 4.5 × transverse diameter of the median ocellus; the middle furrow of prescutum obscure, almost absent; the entire of the 1st and of the 2nd antennomeres and most of the 3rd antennomere black; wings distinctly smoky yellow; malar space 0.3 × transverse diameter of the median ocellus; the middle part of abdominal tergites 5 to 8 punctured. While in the latter one, body slender, the greatest width of hind femur 2.8 × transverse diameter of the median ocellus; the middle furrow of prescutum distinct; antenna reddish brown entirely in female and largely in male; wings clearly infuscate at the basal 3/5 and gradually hyaline at the apical 2/5; malar space 0.4 × diameter of the

medium ocellus in the male and 1.1 × diameter of the medium ocellus in the female; abdominal tergites 5 to 8 strongly shiny without microsculptures.

3. ***Siobla muotuoensis* sp. nov.** (Figs. 10–15)

urn:lsid:zoobank.org:act:BC009923-D38A-471A-9D65-4415D04AC17B

Description. Holotype. Female (Fig. 10). Length 10 mm. Body and antenna black, 2nd and 3rd abdominal tergites, 2nd to 4th sternites, most of 8th abdominal tergite, dorsum of 9th tergite and cerci yellowish brown, 9th abdominal tergite and apical margin of sheath pale brown. Legs black, apical 3/4 of both fore and middle femora, apical half of middle femur, fore and middle tibiae and tarsi, basal 3/5 except extreme base of hind tibia, and hind tarsi yellowish brown, each tibial spur pale brown. Wings hyaline, base of vein C, base of both 1A and 2A+3A, and stigma pale brown, other veins dark brwon. Hairs silver.

Clypeus densely punctured, interspace narrow, shiny; head densely punctured, punctures on temple without any interspaces; punctures on mesonotum smaller than punctures on head, interspaces narrow, microsculptured; punctures on mesoscutellum similar to punctures on head, interspaces narrow, shiny; lateral sides of posttergite microsculptured, middle part of posttergite shiny. Punctures on lateral area of cenchri and middle ridge between cenchri minute and sparse, surface shiny; metascutellum with anterior slope shiny and posterior slope densely punctured; middle and posterior margin of metapostnotum shiny, rest microsculptured; mesepisternum with middle part densely punctured without interspaces, anterior part obscurely punctured, interspaces microsculptured, posterior area sparsely punctured without microsculptures, and venter with very sparse and minute punctures, interspace shiny, anterior part of venter weakly microsculptured, without unpunctured areas; anepimeron coarsely punctured, with basin microsculptured; katepimeron microsculptured with posterior margin shiny; metepisternum with upper part densely microsculptured and obscurely punctured, venter sparsely punctured, shiny; metepimeron with dorsum densely punctured, most of venter and posterior corner shiny; 1st abdominal tergites shiny without microsculptures, lateral sides of 1st tergite shallowly punctured; 2nd to 9th tergites shiny, weakly microsculptured, lateral sides of 5th to 9th tergites distinctly but shallowly punctured.

Hairs on head sparse, 1.5 × as long as transverse diameter of median ocellus, apices curved; hairs on pleuron 1.5 × as long as transverse diameter of median ocellus; anterior margin of clypeus round; malar space 1.1 × transverse diameter of median ocellus; head in front view with eyes converging below, lower interocular distance 1.3 × eye height; anterior margin of supraantennal tubercle weakly elevated, dorsum flat, frontal ridge narrow and low; middle fovea shallow and broad, bottom flat, without deep fovea, not open to frontal basin; lateral fovea deep; interocellar furrow narrow and deep, postocellar furrow distinct; postocellar area elevated with anterior half slightly lower than posterior part, lower than top of ocelli, middle carina only existing in middle and posterior parts, about 1.5 × as broad as long; lateral furrows deep and broad, hardly curved, obviously divergent posteriorly; head behind eyes 1.2 × eyes in length in dorsal view, strongly convex at basal 1/3 and obviously narrowing posteriorly; occipital carina complete; posterior carina of postocellar area hardly higher than posterior carina of temple. Antenna filiform, slightly longer than vein Sc+R, obviously shorter than vein C, and equal to head and thorax combined; 2nd antennomere 1.3 × as long as broad, 3rd antennomere 1.6 × as long as 4th antennomere, subapical antennomeres slightly dilated, hardly

compressed, 7th antennomere 2.2 × as long as broad. Middle furrow on prescutum weak and shallow; mesoscutellum obviously elevated, as high as scutum, without peak or carina, posttergite large, with an obtuse carina, slightly oblique; mesepisternum obtusely elevated, without ventral spur. Apex of hind tibia distinctly enlarged; metabasitarsus 5.3 × as long as broad, 1.1 × as long as remaining 3 tarsomeres combined; pulvilli of hind tarsus small, 1st pulvillus 0.3 × apical breath of metabasitarsus, distance between basal two pulvilli 3.3 × length of 2nd pulvillus. Hind wing with petiole of anal cell 0.5 × as long as cu-a. Ovipositor sheath as long as middle tibia, apical sheath 1.5 × as long as basal sheath; lancet with 16 annuli (Fig. 12), serrulae feebly protruding with obtuse inner corner, 8th to 9th serrulae as in Fig. 13.

Male (Fig. 11). Length 8.5 mm. Similar to female in color and structure but most of fore femur orange brown, malar space 0.8 × as long as transverse diameter of median ocellus**,** head in front view with lower interocular distance as long as eye height; head behind eyes 0.9 × as long as eyes in length in dorsal view, strongly convergent backwards. Genitalia as in Figs. 14, 15.

Variation. The 3rd abdominal tergite of female largely or sometimes entirely black; the 4th abdominal tergite of male sometimes yellowish brown.

Etymology. The specific epithet is derived from the Chinese pronunciation of the type locality.

Holotype. ♀, **China,** Tibet, Mêdog (Muotuo), Hanmi, E.95º07′, N.29º22′, 2180 m, 16-VI-2009, Zejian LI, CSCSHT 00810059 (CSCS). **Paratypes.** 2♂, **China,** Tibet, Mêdog, Hanmi, E.95º07′, N.29º22′, 2180 m, 16-VI-2009, Zejian LI; 3♀4♂, Tibet, Mêdog, Lage, E.94º59′, N.29º34′, 3740 m, 15-VI-2009, Zejian LI; 1♀1♂, Tibet, 2300 m, 30-IV-1986, T. Naito; Exchange KUK; 2♀12♂, Tibet, 2300 m, 30-IV-1986, T. Naito (KUK).

Distribution. China (Tibet).

Remarks. This species is close to *S. basifusca* Niu & Wei, 2013, but differs from the latter by the following characters: antenna black; hairs on dorsum of head and mesoscutellum silver; sheath black with apex yellowish brown; the anterior margin of clypeus round; postocellar area elevated with anterior half slightly lower than posterior half. While in the latter one, antenna reddish brown entirely in female and largely in male; hairs on dorsum of head and mesoscutellum black; sheath yellow; the anterior margin of clypeus truncate; postocellar area hardly elevated.

4. ***Siobla unicincta*** **sp. nov.** (Figs. 16–21)

urn:lsid:zoobank.org:act:A0E12395-90AC-4D68-807C-F73A7F8A0285

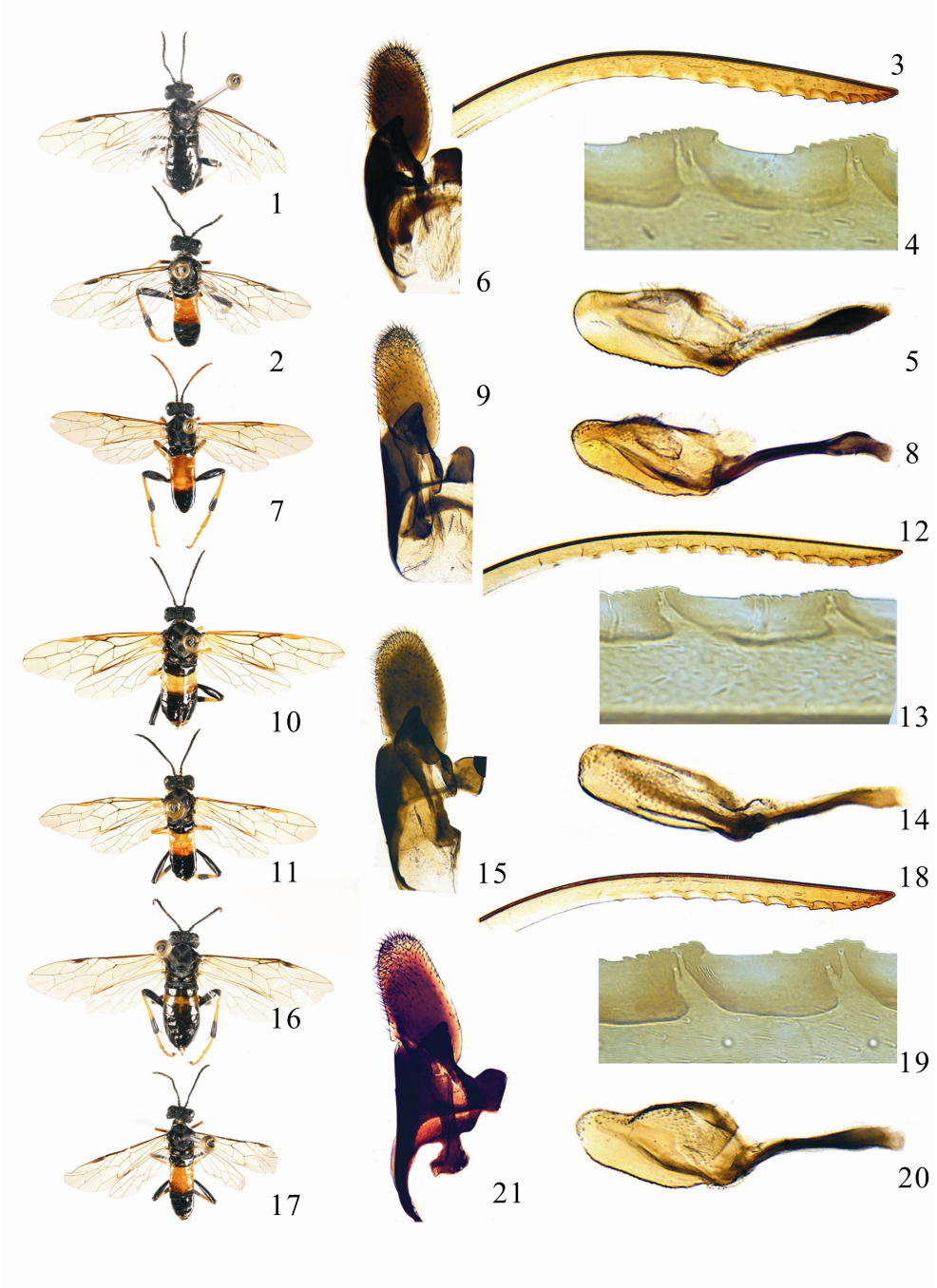
Description. Holotype. Female (Fig. 16). Length 10 mm. Body and antenna black, basal 3 segments of maxillary palp, posterior part of base of mandible, apex of 3rd antennomere, triangular macula on 10th abdominal tergite, cerci and spot on basal or apical sheath pale brown, 2nd abdominal tergite, most of 2nd sternite, middle longitudinal stripe on 3rd abdominal tergite yellowish brown. Legs black, anterior stripe on fore femur pale brown, fore and middle tibiae and tarsi, basal 2/3 of hind tibia, hind tarsi, each tibial spur yellowish brown. Wings hyaline, stigma and most veins blackish brown. Hairs on dorsum of head blackish brown; hairs on pleuron with basal half dark brown, fading towards apices.

Clypeus with sparse punctures with microsculptured interspace, mat; labrum with minute and shallow punctures; rest of head densely punctured without interspaces; mesonotum

including anterior slope of mesoscutellum densely punctured with very narrow interspaces, microsculptured, mat; posterior slope of mesoscutellum coarsely punctured; posttergite microsculptured; parapsides densely sculptured and faintly punctured; punctures on lateral area of cenchri and middle ridge between cenchri minute and sparse, surface shiny; metascutellum densely punctured; metapostnotum shiny, lateral sides densely sculptured; mesepisternum with middle part densely punctured without interspaces, anterior part sparsely punctured, interspaces mat, posterior area with small and sparse punctures and microsculptured interspaces, unpolished, and venter with very sparse and minute punctures, interspace shiny, but without any polished area; anepimeron coarsely punctured, with basin microsculptured; katepimeron microsculptured with posterior margin shiny; metepisternum with upper part shallowly punctured and microsculptured, venter sparsely punctured, shiny; metepimeron with dorsum densely punctured, middle part of venter shiny; abdominal tergites shiny without microsculptures, 3rd to 9th abdominal tergites with lateral sides and posterior margin shallowly and sparsely punctured.

Hairs on head sparse, most hairs 2 × as long as transverse diameter of median ocellus; anterior margin of clypeus round; malar space 1.1 × transverse diameter of median ocellus; head in front view with eyes converging below, lower interocular distance 1.3 × eye height; anterior margin of supraantennal tubercle elevated, dorsum broader than high, posterior end confluent with low frontal ridge; middle fovea shallow and broad, bottom without deep fovea, lateral fovea deep; interocellar furrow narrow and deep, postocellar furrow shallow; postocellar area elevated, obviously lower than top of ocelli, without middle carina, about 1.4 × as broad as long; lateral furrows deep, curved outwards, obviously divergent posteriorly; head behind eyes equal to eyes in length in dorsal view, convex at basal 1/3 and narrowing posteriorly. Antenna filiform, obviously shorter than vein C, and subequal to head and thorax combined, obviously shorter than abdomen; 2nd antennomere 1.2 × as long as broad, 3rd antennomere 1.7 × as long as 4th antennomere, subapical antennomeres slightly dilated, not compressed, 7th antennomere 2.2 × as long as broad. Middle furrow on prescutum weak and shallow; mesoscutellum weakly elevated, not beyond top of scutum, without carina or peak, anterior slope about 2 × as long as posterior slope, middle carina of posttergite short; mesepisternum obtusely elevated, without ventral spur. Apex of hind tibia enlarged; metabasitarsus 5 × as long as broad, 1.2 × as long as remaining 3 tarsomeres combined; pulvilli of hind tarsus developed, 1st pulvillus 0.4 × apical breath of metabasitarsus, distance between basal two pulvilli 3 × length of 2nd pulvillus. Hind wing with petiole of anal cell 0.5 × as long as cu-a. Ovipositor sheath as long as middle tibia, apical sheath 1.3 × as long as basal sheath; lancet weakly sclerotized with 16 annuli (Fig. 18), serrulae feebly protruding with distinct but not acute inner corner, membranous margins between middle serrulae slightly concave and distinctly shorter than serrulae, area below pore line of 9th annulus 2 times as long as high, 9th to 10th serrulae as in Fig. 19.

Male (Fig. 17). Length 8–9 cm. Similar to female in color and structure but 2nd to 4th abdominal tergites and 2nd to 5th sternites reddish brown; hairs blackish brown; malar space as long as radius of median ocellus, head in front view with lower interocular distance 0.9 × eye height; head behind eyes 0.6 × as long as eyes in length in dorsal view. Genitalia as in Figs. 20, 21.



Figures 1–21. *Siobla* spp. nov. 1–6. *S. albomaculata* sp. nov.; 7–9. *S. chayuica* sp. nov.; 10–15. *S. muotuoensis* sp. nov.; 16–21. *S. unicincta* sp. nov.; 1, 10, 16. Adult female, dorsal views; 2, 7, 11, 17. Adult male, dorsal views; 3, 12, 18. Lancet; 4, 13, 19. Middle serrulae; 5, 8, 14, 20. Penis valve; 6, 9, 15, 21. Harpe and parapenis.

Etymology. The specific epithet refers to the abdomen having only one pale abdominal

tergite.

Holotype. ♀, **China,** Tibet, Mêdog, 60K, E.95º36.269′, N.29º42.905′, 2937 m, 18-VI-2009, Meicai WEI, CSCSHT 00810066 (CSCS). **Paratypes.** 3♂, same data as holotype; 2♂, **China,** Tibet, Mêdog, 60 K, E.95º36.631′, N.29º42.945′, 2998 m, 20-VI-2009, Meicai WEI; 5♂, Tibet, Mêdog, 60 K, E.95º34.008′, N.29º42.138′, 2780 m, 18-VI-2009, Meicai WEI & Gengyun NIU; 1♀1♂, CSCS13163, Tibet, Mêdog, 40 K, E.95º34′, N.29º42′, 2750 m, 13-VII-2013, Meicai WEI & Gengyun Niu; 1♀, CSCS13164, Tibet, Mêdog, 40 K, E.95º34′, N.29º42′, 2750 m, 13-VII-2013, Wei XIAO & Tao LI; 1♂, CSCS13165, Tibet, Mêdog, 40 K, E.95º34′, N.29º42′, 2750 m, 13-VII-2013, Ping HU & Yihai ZHONG; 3♀, CSCS13164, Tibet, Mêdog, 52 K, E.95º43.4′, N.29º50.93′, 2954 m, 13-VII-2013, Wei XIAO & Tao LI; 1♀, Tibet, Mêdog, 33 K, E.95º38.733′, N.29º43.583′, 3198 m, 21-VII-2014, Wei XIAO & Yilin XIAO.

Distribution. China (Tibet).

Remarks. This species is allied to *S. albomaculata*. See the above key for the differences between these two species.

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